

**APPENDIX 3.15-C**

**DATA COLLECTION FOR NATURAL RESOURCES**

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Natural resource data collection efforts focused on vegetation communities, jurisdictional wetlands, other sensitive habitats including stream crossing and riparian zones, hydric soils, and serpentine (ultramafic) soils; wildlife movement corridors, and threatened, endangered, and sensitive (TES) species and their habitat requirements. TES species are also termed *special-status species*, particularly those not identified under the federal Endangered Species Act or California Endangered Species Act.

Plant taxonomy and nomenclature followed Abrams (1923, 1944, 1951), Abrams and Ferris (1960), Buckingham et al. (1995), Munz (1959), Hickman (1993), and Hitchcock et al. 1969). Scientific nomenclature and common names for wildlife follows: butterflies, Miller (1992); fish, Robins et al. (1991); herpetofauna (amphibians and reptiles), Committee on Standard English and Scientific Names (2001); birds, American Ornithologists' Union (1983, 1998); and mammals, Wilson and Cole (2000).

Geospatial data (GIS) based on the California GAP analysis (Davis 1998), which uses the CWHR classification (Zeiner et al. 1988; 1990a; 1990b), was used as the primary source for delineation of vegetation communities along the HSR and the Modal alternatives. However, the preferred analysis classification is based on Holland (1986). The most recent vegetation classification for California (Sawyer and Keeler-Wolf 1995) was not used because this data is not available in geospatial contexts.

Geospatial data for TES and special status species was obtained from the CNDDDB (California Department of Fish and Game 2002). There were no data available from the CNPS (California Native Plant Society 2001) or species-specific publications.

A delineation of wetlands and other waters of the U.S. was not conducted for this analysis. The type and extent of jurisdictional wetlands within the study areas was evaluated through GIS analysis of digital wetlands data from the National Wetland Inventory (NWI). NWI is maintained by the U.S. Fish and Wildlife Service (USFWS) to provide information on the characteristics, extent, and status of the nation's wetlands and deepwater habitats. NWI digital data files are records of wetlands location and classification as developed by the USFWS. The classification system was adopted as a national classification standard in 1996 by the Federal Geographic Data Committee. The location of the wetlands is mapped on U.S. Geologic Survey (USGS) 7.5 minute topographic quadrangle maps with codes that provide information on the water body type and substrate.

The NWI maps do not show all wetlands because the maps are derived from aerial photo interpretation with varying limitations due to scale, photo quality, inventory techniques, and other factors. Consequently, the maps tend to show wetlands that are readily photo-interpreted given consideration of photo and map scale. In general, the older NWI maps prepared from 1970s-era black and white photography (1:80,000 scale) tend to be very conservative, with many forested and drier-end emergent wetlands not mapped. Maps derived from color infrared photography tend to yield more accurate results except when this photography was captured during a dry year, making wetlands identification equally difficult. Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory.

Several NWI maps (based on USGS 7.5 minute quads) have not been digitized at the time of this analysis and are unavailable for baseline input or subsequent environmental analysis. These (quad) maps include the following:

- Bay Area-Merced. Eylar Mountain, Isabel Valley, Lick Observatory, Loma Prieta, Morgan Hill, Mount Sizer, Mount Madonna, and Santa Teresa Hills.
- Bakersfield-Los Angeles. San Fernando, Oat Mountain, Newhall, Liebre Mountain, Pastoria Creek, Mettler, Weed Patch, Lamont, Gosford, Mint Canyon, Agua Dulce, Sleepy Valley, Acton, Pacifico Mountain, Lancaster East, Soledad Mountain, Mojave, Monolith, Tehachapi NE, Tehachapi North, Keene, Oiler Peak, Bena, and Edison (approximately one-half of the study area).

There were no geospatial data available for riparian corridors. However, the presence of streams (with corresponding indeterminate riparian vegetation) was determined from a manual review of USGS quadrangle maps, and was inferred from geospatial results of California GAP Analysis and CNDDDB for specific riparian vegetation polygons.

GIS data was exported to MS Excel spreadsheets. These spreadsheets were sorted using the desired parameter in ascending order, and the acreages of like attributes were arithmetically summed using MS Excel. Attributes and MS Excel sums were transferred to the summary tables

For the Los Angeles to Bakersfield region, information on wildlife movement corridors was obtained from the *Missing Linkages* report prepared by the California Wilderness Coalition (2000). This document was produced as a result of a symposium held November 2, 2000, among various organizations, including the California Wilderness Coalition, The Nature Conservancy, USGS, Ecology & Applied Conservation, and California State Parks. The goal of the symposium was "to systematically identify, study, and protect wildlife corridors" (California Wilderness Coalition 2000). Major wildlife movement corridors described in the document were identified within the study area. Impacts on such corridors were assessed by segment.